

From the INTERNATIONAL BUREAU

**PCT**

NOTIFICATION CONCERNING  
TRANSMITTAL OF COPY OF INTERNATIONAL  
PRELIMINARY REPORT ON PATENTABILITY  
(CHAPTER I OF THE PATENT COOPERATION  
TREATY)  
(PCT Rule 44bis.1(c))

To:

SMITH, Marlin, R.  
SMITH IP SERVICES, P.C.  
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ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year)

26 March 2009 (26.03.2009)

Applicant's or agent's file reference

021385U1PCT

IMPORTANT NOTICE

International application No.

PCT/US2006/035052

International filing date (day/month/year)

11 September 2006 (11.09.2006)

Priority date (day/month/year)

Applicant

HALLIBURTON ENERGY SERVICES, INC. et al

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty).

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Authorized officer

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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT) Rule 44bis

Applicant's or agent's file reference 021355U1PCT	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. PCT/US2006/035052	International filing date (day/month/year) 11 September 2006 (11.09.2006)	Priority date (day/month/year)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant HALLIBURTON ENERGY SERVICES, INC.			

<p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) issued.</p>																
<p>3. This report contains indications relating to the following items:</p> <table border="0"> <tr> <td><input checked="" type="checkbox"/> Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/> Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/> Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/> Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/> Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/> Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/> Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/> Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> <p>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 9bis.1, but not, except where the applicant makes an express request under Article 28(2), before the expiration of 30 months from the priority date (Rule 44bis.2).</p>	<input checked="" type="checkbox"/> Box No. I	Basis of the report	<input type="checkbox"/> Box No. II	Priority	<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/> Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement	<input type="checkbox"/> Box No. VI	Certain documents cited	<input type="checkbox"/> Box No. VII	Certain defects in the international application	<input type="checkbox"/> Box No. VIII	Certain observations on the international application
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<input type="checkbox"/> Box No. VIII	Certain observations on the international application															

<p>The International Bureau of WIPO 34, chemin des Colombettes 1214 Geneva 20, Switzerland</p> <p>Facsimile No. +41 22 338 82 70</p>	<p>Date of issuance of this report 17 March 2009 (17.03.2009)</p>
	<p>Authorized officer  Yoshiko Kuwahara</p> <p>e-mail: <a href="mailto:prf7.pct@wipo.int">prf7.pct@wipo.int</a></p>

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:  
MARLIN R. SMITH  
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## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference <b>021385UIPCT</b>		Date of mailing (day/month/year) <b>21 FEB 2007</b>
<b>FOR FURTHER ACTION</b> See paragraph 2 below		
International application No. <b>PCT/US06/35052</b>	International filing date (day/month/year) <b>11 September 2006 (11.09.2006)</b>	Priority date (day/month/year)
International Patent Classification (IPC) or both national classification and IPC <b>IPC: E21B 33/12 (2006.01)</b> <b>USPC: 166/387,180,179</b>		
Applicant <b>HALLIBURTON ENERGY SERVICES</b>		

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

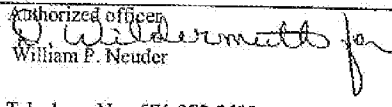
### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Date of completion of this opinion <b>17 January 2007 (17.01.2007)</b>	Authorized officer  William F. Neuder Telephone No. 571-272-3600
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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US06/35052

Box No. 1 Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed  
☐ a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing  
☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper  
☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed.  
☐ filed together with the international application in electronic form.  
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/US06/35052

Box No. V Reasoned statement under Rule 43 *bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 2,4,7,8,13,15,17,23,25 and 27	YES
	Claims 1,3,5,6,9-12,14,16,18-22,24 and 26	NO
Inventive step (IS)	Claims 4,7,8,13,17,23 and 27	YES
	Claims 1,3,5,6,9-14,16,18-22 and 24-26	NO
Industrial applicability (IA)	Claims 1-27	YES
	Claims NONE	NO

2. Citations and explanations:

Claims 1,3,5,6,9-12,14,16,18-22,24 and 26 lack novelty under PCT Article 33(2) as being anticipated by Freyer 2004/0020662.

Freyer discloses a packer and method of forming a barrier using the packer. A reinforcement material 11 is embedded within a swellable sealing material 10,12. The seal material (10,12) is swelled by contacting the sealing means with well fluid. As to claims 3,14 and 26, reinforcement material 11 is in the form of a sleeve (see figure 3). As to claims 5,16 and 22, base pipe 4 is inserted into the seal assembly. As to claim 6, the base pipe is inserted after the reinforcement material is embedded. As to claims 9 and 18, the material 11 is cylindrical shaped and the seal material is disposed both external and internal to the sealing material. As to claims 10,11,19 and 24, the seal material contacts the base pipe between opposite ends of the seal and sealingly contacts the base pipe and wellbore wall upon swelling. As to claim 21, a base pipe 4 is provided.

Claims 2,13 and 25 lack an inventive step under PCT Article 33(3) as being obvious over Freyer (as described above). Freyer does not disclose the use of a metal reinforcement material. Freyer discloses the use of Kelvar reinforcement which is stronger and more lightweight than metal. It would have been considered obvious to use metal reinforcement in place of Kelvar since Kelvar is a known improvement over metal.

Claims 4,7,8,15,17,23 and 27 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest a swellable seal as claimed wherein a longitudinal slit is cut into the seal.

Claims 1-27 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.